https://translate.google.com/translate?hl=en&sl=de&u=http://www.wolkenkratzerhaus.de/VZ/Historie.htm&prev=search

The golden age of home computers began in 1975 with those of the Altair inspired KIM 1 and Wozniak 's own development, later under the brand name Apple was sold. The end was already apparent When, in 1985, MSX tried to set a standard for home computers introduce.
Two processor families, MOS 6502 and Intel / Zilog 8080 (later Z80) with 8-bit data bus formed the heart of most home computer of this time. The Video Technology game console Creati-Vision from 1981 ran with a 6502 CPU at 2MHz, 1K RAM and 16K video RAM, at a resolution of 256x192 in 16 colors with 32 sprites !!!
A year later, the Coleco Vision appeared with Z80 CPU. She reached Although not quite the VTL model, but displaced CreatiVision because of better accessories and more versatile program cartridges.
After the video game crash of 1983, VTL considered its strategy. Cheap was now trump. One also chose the Z80 CPU, but fell in the technical possibilities back significantly.
It is certainly a rumor that in 1982 it was a LASER 100 in the US would have given. - In chip 03/1983 a VZ 100 was presented.
This should have been the prototype:
- without sound and color output in the VZ / TEXET housing.
Until 1983, most people in modern industry denied access to computers. The home computers set a computing power ready, which until then only from mainframe computers knew and facilitated access for the first time to a broad public to this new fascinating world.
LASER 110/210/310 and VZ 200
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The VZ 100 and the British TX-8000 from Texet (with Video Technology BASIC V1.0), were forerunners of the Mid-1983 emerging on the home computer market laser 110, 210 and VZ 200. The LASER 310 appeared only in August 1984. The devices have slightly different Details on. Essentially, these are always the ones same hardware:
The first versions had 2 ROM's with 8 K. In the episode then only 1 ROM with 16 K. (With BASIC 1.1, 1.2 and 2.0)
There were 3 different cases in different colors and with various inscriptions.
The 100/110 series only had monochrome image representation.
In Scandinavia, the 210 he was silvered as a Salora Fellow.
In England, France and Spain, as well as in Australia were the 210 he, 310 he as LASER 200/300 expelled.
For example, instead of the rubber, the LASER 310 has a small writing machine keyboard and last appeared with a housing that from the non-compatible series of the 350/500 / 700s.
Nevertheless, all accessories are suitable for all variants, except the 16K memory expansions. The memory expansion varied.

The software is easily interchangeable, provided that
enough space is available. Manufacturer was alone
Video Technology Limited (VTL later VTECH) in Hong Kong.
distribution
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The company SANYO VIDEO was the general importer for Germany
Distribution in Hamburg Lange Reihe 29 on, later renamed in
CE-TEC Trading GmbH. The company moved to 1.1.1986 after
Ahrensburg. Afterwards it changed its name under the names ACER, Acer - Cetec
GmbH, Ce-Tec Data Technology GmbH, ACER-Cetec Computer GmbH.
Hard to understand structures. -> See also software.
The VZ / LASER were used as low cost computer mainly by the
Department stores Neckermann, Quelle, Karstadt and Kaufhof sold.
According to estimates, a total of 30 to 50 thousand units in
Germany. - Target group were pupils and students.
Who next to the computer (300 to 450 DM) the necessary periphery
(Color monitor, printer, floppy disk, memory expansion,
Joysticks, printer interface), had nevertheless for his
System quickly spent DM 3,000 and more. Compared to
other systems of that time a rather favorable amount.
(Note: A journeyman was happy when he was in the first year
monthly grossed 2,000 DM gross).
The main purpose of Sanyo Video / CE-TEC was probably the beginning
Sales of SANYO monitors. Then there were data recorders and
Printer from other manufacturers. The sale of LASER computers
under the company name Sanyo Video was so misleading that
SANYO finally forbade the further use of her name.
Renamed in CE-TEC, this company used again by analogy
to the SANYO computer the designation MPC 80 for their MSX version.
(a Daewoo DPC 200 with German keyboard)
Trading home computers was more of a side business,
like the distribution of the video game CreatiVision.
But this name confusion led to that, for example
the LASER 310 in the magazine Happy Computer (9/1984) as
Japanese product was praised. Made in the Heyne MSX book
D. Eirich 1985 the same mistake by the companies
SANYO and Sanyo video set equal.
equipment
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A disadvantage for the LASER series was that the accessories
emerged relatively late in the market, so many of them
Product already averted - or another
had chosen. The cost of the accessories kept others from doing so
starting to deal with the devices further apart. After all
As tools, they served many to learn BASIC and one
get to know new technology. That's how LASER became home computers
also used in computer holiday camps on the Adriatic.
CREATIVISION 1/83 - Advertising in Chip
VZ 100 - 3/83 Test in Chip - Prototype? BASIC 1.0?
VZ 200 - 6/83 test in chip

LASER 110/210 - 11/83 Advertising in My Home Computer
VZ 200 - 2/84 review in mc
LASER 310 - 9/84 Presentation in Happy Computer
Floppy drive - 10/84 test in?
Light-Pen - 12/84 Test in Happy Computer
Plotter PP-40 - before 1/85 in RUN
A / D converter KOMTECH DLU 8201 - 4/85 Offer in c't
USER PORT - 5/85 Offer in My Home Computer
Graphics possibilities

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The LASER computers were at the time in competition with the TRS-80 and the first $ 100 computer: the ZX81. The possibility of colored To show graphics was still quite new and so they were given to them the attribute Color Computer. However, neither at launch, even later were the VZ / LASER with comparable advertising campaigns accompanied.

It is hard to understand why the manufacturer has the abilities of Video controller has not fully exploited. So can be without great effort a third graphics mode with 256 * 192 pixels represent (49,152 pixels instead of 8,192 in mode (1)). That would came closer to the upcoming MSX standard and would have at least made a useful word processing possible.

Clever operating system?

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In 1977, Microsoft sold its basic interpreter to Apple and Tandy. The operating system of the VZ / LASER is over large parts identical to that of the old TRS-80 I (Basic Level II of Radio Shack). This makes it possible TRS80 machine programs quite easily transfer for the LASER home computer. The to the best commercial programs counted, ASSEMbler and LASCOM (BASIC COMPILER), were implementations of the old TRS-80 Programs. On the devices, in the ROM, or in the manuals missing any reference to Tandy, or MICROSOFT as developer of the Operating system. The abbreviations of the developers are still preserved. Compared to the TRS 80 ROM some BASIC commands are deleted without removing the associated subroutines.

(The VZ 100 still mastered the PRINT MEM command!)

This crippling certainly had licensing reasons and did not provide any Improvement of the BASIC

The VZ / LASER was originally not designed for floppy disk operation, but for the use of cartridges, as with CreatiVision and later also on the learning computers of VTECH.

The devices carry glued nameplates with the lettering MADE IN HONG KONG. But many missed it.

The rumors about license fraud and litigation took no end. - Maybe these inconsistencies were also one Reason for the lack of advertising.

Other lasers

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There are very few pictures and hardly any brochures on the products.

Retailers were mostly looking at photocopies of
instructed. The company VTL can not do very well with CE-TEC
otherwise she would not have been satisfied for the following LASER
trying to find other distributors.
CE-TEC sold its LASER 210/310 from 1983 to 1984, remaining stocks
until 1985. Furthermore, the LASER 2001, 3000 and the MSX calculator
MPC 80, probably also the LASER MSX 2.
Also from VTL with Z80 CPU were the LASER 350, 500 and 700,
which appeared in 1985, but hardly any buyers found. There was an APPLE
compatible LASER 128 and some IBM PC compatible LASER.
Continue the handhelds (Alphanumeric calculator)
PC3, PC4, PC5, as well as the LASER 50.
Later, VTECH produced so-called children learning computers
in different variations under different names.
The lack of advertising may be one of the reasons for 2006
another scene for the VZ / LASER in Australia or for the ZX81
but not in Germany for years, although here
maybe even larger quantities have been sold.
Only as good as the software ...
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Another sticking point was software distribution. At the show
The LASER computer had just 12 programs. Until 1985
at least about 50 pieces. If you look at the programs today,
which were then sold for expensive money by Sanyo Video,
so you have to call that sometimes as rip-off. In many cases they had
Buyer then the problem that original software only with difficulty
and often did not let them load from the cassettes.
In addition to Quelle and Karstadt Sanyo sold video and COMTRONIK
Distribution GmbH in 2070 Ahrensburg, PO Box 1554 Original Software.
Later this company changed its name to ACTRONIK (HOBBY). CE-TEC pulled
allegedly because of lack of space also after Ahrensburg.
Maybe both companies were identical.
A care of the various computer clubs, how to get it from
other companies knew, did not take place. There were only inquiries
sparse information, often only after often repeated requests. Thus
Only the 1st VZ / LASER Fan Club of the
Wolfgang Maschke in Berlin thanks to his tireless commitment.
From February 1984 to August 1989 he created 26 information magazines
in an edition of approx. 150 pieces each as well as two special issues.
His laborious and unpaid commitment was something like that
as a fan community came about, in the over 700 programs
and some accessories for the VZ / LASER were developed.
Unlike the users of other home computers could the
VZ / LASER fan at least in the beginning not on a program selection
so that the principle came true:
- A computer is only as good as its program.
Literature about the LASER
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Compared to other systems, only a few appeared for LASER
Articles in computer magazines. It looked particularly sparse

in the book sector. Only at the end of 1984 did the books become tips
and tricks for LASER 110 and 210, as well as the software system
Handbook I, author Wolfgang Radeloff edited; the first one
rather superfluous, the second but an absolute must for the
Programming represented. (The TRS 80 routines, PEEK and POKE,
Structured programming, control tasks, graphics, sound, ma-
machines and assembler programming). In addition, appeared in the Hübben
Publisher a folder under the title ROM listing for LASER
110,210,310. Contrary to the name but only parts of the
Operating system explained in it.
The magazine HC - My Home Computer has two for the
Assemblerprogramming indispensable books published:
ROM listings for LASER 110,210,310 and VZ 200; ISBN 3-8023-0852-2
and The LASER DOS for LASER 110,210,310 and VZ 200; ISBN
3-8023-0868-9. Both published in 1985 by Vogel Verlag,
Würzburg, by Gerhard Wolf.
The third book in this series is called: The Basic Interpreter in the Laser
110,210,310 and VZ 200, ISBN 3-8023-0874-3, also by G. Wolf
For the TRS-80 the book Programmieren in was published by P.Immertz
Machine language with Z80, Hofacker Verlag 1984, ISBN 3-921682-62-2
which is more suitable than the one due to system similarity
so-called 'Bible of the Z80 Programmers' by Rodney Zaks:
System programming on the Z80, Sybex Verlag, ISBN 3-88745-099-x